

Ian Cullimore PhD

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SYNOPSIS

Patent and other Expert Witness (19 Cases, 16 Expert Reports written, 7 Depositions, 1 Court Case at trial, 1 other Court attendance). Experienced hi-tech CEO/CTO-level person, yet still very hands-on (architecting, coding). Much experience both in the UK and California (Silicon Valley & LA) in companies ranging from small startups to large corporations, and in building and managing software and hardware teams. Specialize in IoT, embedded, handhelds, smartphones, mobile, operating systems, device drivers, communications, ultra-low power systems, interfacing to the Cloud. Entrepreneur; start-up and young company specialist. Raised Angel and VC rounds. Taken startups to Exit. Much experience interfacing with Boards, Investors, and sales/marketing/bizdev groups.

Patent and Other Expert Witness Work

- 2018 - *Abe v Apple* (For the *Defendant*). Patent infringement case. Ref Vincent Zhou, O'Melveny & Myers LLP, Los Angeles. Expert Report Declaration written in support of petition by Apple for an Inter Partes Review.
- 2018 - *Parkridge Limited et al v Indyzen, Inc. et al.* (For the *Plaintiff*). Ref Zach Clark, Adam Wolek, Taft Stettinius & Hollister LLP, Chicago. Investigating claims of inadequate performance and quality in a set of subcontracted software programs. Expert Report written. Deposition given March 2019, Redwood City, CA. Soon to attend Arbitration Hearing. Source Code Review undertaken.

- 2018 - *Qualcomm Incorporated v Apple Inc.*, Civil Action No. 3:17-CV-02403-CAB-MDD in the Southern District of California (for the *Defendant*). Fish & Richardson (Houston TX), ref Thad Kodish. Expert Report written on Claim Construction, and Deposition given on this July 2018 (Atlanta GA).
- 2017 *Semcon v MediaTek* (for the *Defendant*). LTL Attorneys (Los Angeles). Expert Report on embedded Linux and Android technologies for smartphones and smart TVs. Source code reviews. Case currently stayed.
- 2015 - 2017 *Phoenix v VMware* (for the *Defendant*). Morrison Foerster (San Francisco), ref Diana Kruze. Re software license agreement. Expert Report on technology issues written. Source Code Review undertaken. Deposition given. Attended Court case Oakland, CA, May - June .2017.
- 2015 - *Papst Licensing GmbH v Hewlett Packard Corporation* (for the *Defendant*). Fenwick & West (Mountain View, CA), ref Charlene Morrow. Re infringement. Technical analysis undertaken. Case currently stayed, may restart.
- 2015 - *Smart Skins LLC v Microsoft Corporation* (for the *Plaintiff*). Proskauer Rose LLP (Boston, MA). Ref John M. Kitchura, Jr. Re infringement and invalidity. Claims Construction Expert Report written. Validity Expert Report written. Infringement Expert Report written. Undertook a teardown of Microsoft Surface keyboard designs and reverse-engineered the (serial and USB) communications protocols. Deposition given (April 2016). Expert Report written for IPR proceedings. Waiting for further deposition by Microsoft and court case. Currently still in IPR.
- 2013 - 14 *Monec v Samsung* (for the *Defendant*). Fish & Richardson (Washington DC). Expert Report written. Deposition given. Ref Linhong Zhang, Chris Winter, Joseph Colaianni. Re Smartphone design issues.
- 2013 *Cradle IP v Texas Instruments* (for the *Defendant*) Covington & Burling (Redwood City, CA). Expert Report written. Ref Anupam Sharma, Hyun Byun. Re Power management issues.
- 2012 *St. Clair Intellectual Property Consultants, Inc., v. Motorola Mobility Inc.* (for the *Defendant*). (Representing Motorola Mobility; case stayed).
- 2012 *Zynga v King.com* (for the *Defendant*). Origin Ltd, London. Ref Peter Langley, Colm MacKernan. Online video game copyright infringement.

- 2011 *Optimum Power Solutions LLC v Apple, Inc.* (for the *Defendant*). Hogan Lovells (Washington DC) Ref Joseph Rafferto, Celine Crowson.
- 2011 *St. Clair Intellectual Property Consultants Inc. v Acer America Corporation, Acer Inc, Dell Inc, Gateway Companies Inc, Gateway Inc, Intel Corp, Lenovo (United States) Inc, Microsoft Corporation, Toshiba America Inc, Toshiba America Information Systems Inc., and Toshiba Corporation* (for the *Defendants*). Fish & Richardson (Washington). Expert Report written. ref Scott Elengold. 'The Function Call Monitoring Patents'. (Power management issues). Also counter claim led by Microsoft: *Microsoft Corporation v St Clair Intellectual Property Consultants Inc.* For the *Plaintiff*.
- 2011 *St. Clair Intellectual Property Consultants v Apple Inc.* (for the *Defendant*). Cooley LLP (Palo Alto) Ref Timothy Teler.
- 2008 *Microsoft Corporation v Tom Tom; SPT v Tom Tom; Garmin v Tom Tom; Bosch v Tom Tom.* (for the *Defendant*). Expert Report written. Origin Ltd, London. Ref Peter Langley, Colm MacKernan
- 2008 *Symbol Technologies Inc. v Janam Technologies LLC* (for the *Defendant*). Expert Report written. Deposition given. Kenyon & Kenyon, New York, ref John Kenny.
- 2004-5 *Khyber Technologies Corporation v Hewlett Packard Company* (for the *Defendant*). Expert Report written. Deposition given. Kenyon & Kenyon, New York ref Michael J Lennon
- 1986-87 *The Crown v Dye et al.* (for the *Plaintiff*). Expert Report written. Computer Forensics Expert Witness in Old Bailey (Central Criminal Courts, London) case, largest drugs bust case to that date. Defendant had saved deleted data on his computer, which I was able to retrieve.
- 1985 For *Wilkinson Kimbers* (London). Copyright infringement case concerning video games ROM code. Extracted ROMs from motherboards, did forensic examination on code to show copying had taken place.
- present One Court appearance (UK), One Court attendance (USA).
Nineteen cases.
Seven Depositions given (USA).

Sixteen Expert Reports written.

Multiple hardware and software projects giving in-depth technical advice to patent lawyers.

Patents Held

Ultra-Small, Ultra-Low Power Single-Chip Firewall Security Device with Tightly-Coupled Software and Hardware (US 9,705,848 B2)

TCP/IP Stack-Based Operating System (US 9,436,521 B2)

Ultra-Low Power Single-Chip Firewall Security Device, System and Method (US 8,875,276 B2)

Massively Multicore Processor and Operating System to manage Strands in Hardware (US 8,607,086 B2)

TCP/IP Stack-Based Operating System (US 8,335,864)

Apparatus and method of communicating with RFID tags (US 7,455,217)

Method of RFID Data Tracking (US 7,040,532)

Computer Power Management System (US 5,560,024)

Computer Power Management System (US 5,428,790)

Compact Portable Computer, EP 0479915

Employment/Consulting/Start-Ups

6/2015 – *Self-employed – Software/Hardware Designer and Developer, Hi-tech Startup Specialist, Patent (and other) Expert Witness*

I currently specialize in operating system design and development for advanced small devices, IoT ('Internet of Things') hardware and software product designs, and Expert Witness (patents, computer forensics etc.) consulting:- 18 Cases to date, 16 Expert Reports written, 7 Depositions, and 1 trial testimony.

I trade through my personal UK corporation Crushproof Ltd. I am currently developing (through 'Iota-Tech', now named 'GoSecured') an IoT security device, have designed the hardware, and am developing embedded software (with my own Operating System design and firmware for the unit), as well as a back-end Internet Server software system (C/C++, LAMP), and iPhone and Android apps. US Provisional Patent filed.

10/2012 – 5/2015 *Paqet Systems Corp* (Sunnyvale, CA, and UK)

Co-founder and CTO. Silicon Valley & UK startup specializing in Ultra Low Power software operating systems for Machine-to-Machine ('M2M'), Sensor Hubs, Wearables and Internet Of Things ('IoT') devices on ARM microprocessors. Two provisional patents filed. Developing ultra-low power IoT node and bridge embedded operating systems software.

11/2010 – 9/2012 *IOTA Computing, Inc.* (Palo Alto, CA, and UK)

Co-founder and CTO. Invented innovative combination Internet-Centric Software Operating System and MCU chip for the Internet of Things ('IoT'). Multiple patents granted and pending. Extreme Ultra Low Power. Helped raise \$2.5m funding. Managed and grew software and hardware development team.

2008 – 2010 *Self-employed - Independent Consultant.*

Wide range of software and hardware development, consulting, and especially Patent Expert Witness litigation and forensics work.

Did two projects for 3M Rochford Thompson (3M acquired the UK passport scanner manufacturer in 2007), developing software for their passport scanners (and e-passport readers) as used across the world in international airports and other border control points. Also developed communications software for mobile passport scanning.

2006 – 2008 *Martian Gaming Ltd* (London)

Co-founder and CTO of innovative Online Mobile Gaming platform technologies organisation. Established company. Raised Angel

finance (\$1m). Launched in Ukraine with major Telecoms provider (Life). Had exclusive contract with PartyGaming. Also with Zero36, 888Mobile. Developed native and Java (J2ME) apps for mobiles phones, web/cloud server solutions (LAMP, J2EE) to interface to mobile phone network operators and online gaming platforms. Much business with gaming operator PartyGaming in Gibraltar, Eastern European gaming and telecoms companies (especially Ukraine and Russia), and Israel (gaming operators and software development companies).

2004 – 2006

CTO, Cibenix Ltd (Dublin, Ireland)

Mobile phone On-Device Portal (ODP) software company. Led server (LAMP, Java - J2EE) and client (Symbian & Java - J2ME) development. Managed software team of 14 engineers.

Press release about my appointment:

<http://www.tornado-insider.com/press/presses.asp?pressid=7031>

2003 – 2004

Self-employed - Independent Consultant.

Various software and hardware development projects, and Patent Expert Witness work.

1997 – 2003

Informal Software (UK & Santa Clara, CA, USA)

Founder, CEO & CTO.

Established innovative software company based on my 'Informal Interface' PhD research. Raised \$8m Angel and VC finance. Licensing negotiations with Apple and Adobe. Grew company to 40+ people on both sides of the Atlantic. Won **DemoGod** Award. Worked with POS manufacturer Alphameric plc (London Stock Exchange listed company). Developed POS system ("Wireless Food Ordering System") for 3M Food Services Division (Minneapolis) under \$50K NRE contract. Also part-time Consultant. One of the Architects of the **Symbian Operating System (1997)**.

1996 - 1997

Two Way TV (London)

CTO (consultant).

Two Way TV was an innovative interactive TV company, doing user-interactive television and games in the latter days of analogue broadcasts, and the transitioning to digital (DVB standards).

The company designed its own set-top box (and associated systems software), custom handheld remote control, bank-end server systems, billing, and interactive program content.

1994 – 1996

Xircom, Inc. (Thousand Oaks, California, USA)

Software Director. Created award-winning innovative Ethernet/modem installer software products. Invented 'plug & play' for Windows 95 before Microsoft. As a consultant, developed software for Palm devices to interface to cellular phones via the serial port, to enable sending & receiving of text (SMS) messages etc.

1992 – 1994

Digital Research Inc. ('DRI') (Hungerford, UK and Monterey, California USA)

DR DOS, Netware Operating System and PalmDOS development work. Created DOS power management systems. DRI was acquired by Novell. Developed secure login software client.

1988 – 1991

Poqet Computer Corp. (Silicon Valley, California, USA)

Co-Founder and Vice President, Software R&D

Established the company. Wrote proprietary power-managing ROM BIOS, DOS power management drivers. Created the whole PCMCIA ('PC Card') industry standard. Created software and hardware power management techniques to make the Poqet PC palmtop computer to run for 100 hours on two 'AA' batteries. Advised Intel on low-power CPU design (386SL). Managed software team of 12 people.

EXIT: Company acquired by Fujitsu.

1986 – 1988

D.I.P. Ltd (Guildford, Surrey)

Founder & CTO. Invented world's first 'pocket PC'. Licensed to Atari as 'The Atari Portfolio'. Wrote PC-compatible ROM BIOS. Wrote MS-DOS clone o/s. Invented hardware and software ultra low-power systems. Pocket PC ran for 50 hours on 3 'AA' batteries.

EXIT: Company acquired by Phoenix Technologies.

- 1984 – 1986 *Psion Ltd (London).*
 One of the first software engineers at Psion. (Psion Software became Symbian in 1998). Video games developer. Developed hand-held PDA operating system and communications software, tool chains. Helped develop innovative POS (Point of Sale) systems for their project with Marks & Spencer retailers. Firmware, software design.
- 1983 – 1984 *Thorn EMI (Wardour Street, London)*
 Video games programmer (Atari 800, Commodore 64, Sinclair Spectrum, TI 99/4A, BBC Micro). Developed video games in assembler programming languages (6502, Z80).
- 1981 – 1983 *British Aerospace.(Brooklands, Weybridge, Surrey)*
 Software programmer. Projects included some work for Concorde. Wrote programs in assembly language for IBM System/370 mainframes.

Education

- 2004 – 2007 *Honorary Senior Research Fellow, University of Birmingham, UK*
- 1991 – 2000 *PhD, Cognitive & Computer Science, University of Sussex, UK (part-time) Specialized in HCI – Human-Computer Interaction. Thesis: "An Analysis and Implementation of Informal Human-Computer Interaction"*
- 1986 Imperial College London, Almunus – MSc Computer Science (started course but had to suspend it owing to the success and time commitments of my new start-up).
- 1978 – 1981 *BSc (Honours) Mathematics, King's College, University of London*
 - President of the Maths Society

Books, Appearances & Publications

- Guest Panelist, *MAPOS (Mobile Applications and Operating Systems)*, London, February 2005
- Speaker, *Roth Capital Investment Symposium*, Laguna Niguel, CA, February 2001
- Guest Panelist, *Digivations Conference*, CA, September 2000
- Live Interview, *Sky News Business Report*, June 2000
- Live Interview, *CNBC Power Lunch Report*, June 2000

Live Webcasts, *CEOCast.com*, February 2000 & February 2001

“Pen & Paper, the Stylus, and Today’s Computing Needs” Tradespeak.com, February 2000

“A New Pen and Paper Paradigm”, Colorado Springs Business Journal, December 1999

Communicating With Microcomputers (1987), Sigma Press (Distributed by John Wiley & Sons). ISBN 1-85058-055-3

White House Papers (University of Sussex, 1992) *Informal Interfaces*

White House Papers (University of Sussex, 1994) *Informal Interfaces: Informality in Human-Computer Interaction*

White House Papers (University of Sussex, 1995), *An Application of AI Techniques to a Consumer Software Product*

Technologies

Extremely fluent and experienced in Assembler, C, C++, Java, Prolog, PHP, etc, some VHDL, Verilog, etc. Multiple Operating System and CPU designs and architectures. All aspects (almost) of Software and Hardware. Web technologies. Communications and Internet protocols. Specialise in Power Management, PDAs, palmtops, operating systems, HCI (Human-Computer Interaction).

Awards

DemoGod Award, Demo 2000, Palm Springs

PC Magazine Award for Technical Excellence, Comdex Fall, Las Vegas, 1989

US Work Visas Held

O-1 : *‘for the individual who possesses extraordinary ability’*. For Iota Computing Inc, 2011-2014

H-1B : US Temporary Work Visa, for Xircom, Inc. 1994-1997

H-1: US Temporary Work Visa, for Poqet Computer Corp. 1988-1991

Other Associations for ‘Full-Disclosure’ (Start-Ups, Consulting, Contracting)

3M Rochford Thompson (Newbury, UK) – passport scanner software.

BTS Technology Inc (Santa Barbara, CA). RFID and wireless PDA applications for the Wine industry.

Indigo (Santa Barbara, California) – Omega IR camera control software.

3M (Food Division, Minneapolis) – PDA Wireless Food Ordering System.

Mobile Travel Technologies Ltd (London) – mobile applications for travel planning and booking.

Nokia (Tampere, Finland) – Research report on *Global Software Development Strategies*.

Psion Dacom (Milton Keynes). Advised on GSM Stacks in Symbian OS.

Microscribe (Wales, 1991) Developed an MS-DOS version of their CP/M ruggedized handheld device.

Brandwidth (Windsor, UK) – Windows Mobile software development for Toyota Cars.